

In the claims:

Claims 1-71 (canceled).

72. (New) A composition-of-matter comprising a double stranded RNA molecule associated with a targeting moiety selected capable of targeting to a specific cell and/or tissue type.

73. (New) The composition-of-matter of claim 72, further comprising a nucleic acid carrier.

74. (New) The composition-of-matter of claim 72, wherein said targeting moiety is non covalently attached to said double-stranded RNA molecule.

75. (New) The composition-of-matter of claim 73, wherein said targeting moiety is covalently attached to said nucleic acid carrier.

76. (New) The composition-of-matter of claim 73, wherein said double stranded RNA molecule is non covalently attached to said nucleic acid carrier.

77. (New) The composition-of-matter of claim 73, wherein said nucleic acid carrier comprises a polymer selected from the group consisting of a polycationic polymer, a non-ionic water-soluble polymer, a polyether polymer and a biocompatible polymer.

78. (New) The composition-of-matter of claim 77, wherein said polymer is polyethylenimine and/or poly(ethylene glycol).

79. (New) The composition-of-matter of claim 73, further comprising a compound capable of facilitating degradation of an endosomal membrane.

80. (New) The composition-of-matter of claim 79, wherein said compound capable of facilitating degradation of an endosomal membrane is melittin or a melittin derivative.

81. (New) The composition-of-matter of claim 72, wherein said targeting moiety is a ligand of a surface marker of said specific cell and/or tissue type.

82. (New) The composition-of-matter of claim 81, wherein said ligand of said surface marker is a biological ligand of said surface marker.

83. (New) The composition-of-matter of claim 72, wherein said targeting moiety is an antibody or antibody fragment.

84. (New) The composition-of-matter of claim 72, wherein said targeting moiety is a growth factor.

85. (New) The composition-of-matter of claim 84, wherein said growth factor is epidermal growth factor.

86. (New) The composition-of-matter of claim 81, wherein said surface marker is a growth factor receptor and/or a tumor associated antigen.

87. (New) The composition-of-matter of claim 86, wherein said surface marker is epidermal growth factor receptor.

88. (New) The composition-of-matter of claim 72, wherein said double stranded RNA molecule comprises a polyinosinic acid strand and/or a polycytidyllic acid strand.

89. (New) The composition-of-matter of claim 72, wherein said double stranded RNA molecule is composed of RNA strands each of which composed of a number of ribonucleotides selected from a range of 10-3,000 ribonucleotides.

90. (New) The composition-of-matter of claim 72, wherein said specific cell and/or tissue type is associated with a disease and/or is a nervous system cell and/or tissue.

91. (New) The composition-of-matter of claim 90, wherein said specific cell and/or tissue type is a tumor cell and/or tissue and/or is a glial cell and/or tissue.

92. (New) The composition-of-matter of claim 91, wherein said specific cell and/or tissue type is a malignant glioma cell and/or tissue.

93. (New) The composition-of-matter of claim 92, wherein said specific cell and/or tissue type is a glioblastoma cell and/or tissue.

94. (New) The composition-of-matter of claim 72, wherein said specific cell and/or tissue type is a human cell and/or tissue.

95. (New) A pharmaceutical composition comprising a pharmaceutically acceptable carrier and as an active ingredient a composition-of-matter which comprises a double stranded RNA molecule associated with a targeting moiety selected capable of targeting to a specific cell and/or tissue type.

96. (New) A method of killing a specific target cell and/or tissue, the method comprising exposing the specific target cell and/or tissue to a composition-of-matter comprising a double stranded RNA molecule associated with a targeting moiety selected capable of targeting to the specific target cell and/or tissue, thereby killing the specific target cell and/or tissue.

97. (New) The method of claim 96, wherein said exposing the specific target cell and/or tissue to said composition-of-matter is effected by administering said composition-of-matter to a vertebrate subject bearing the specific target cell and/or tissue.

98. (New) The method of claim 97, wherein said administering said composition-of-matter to said vertebrate subject is effected by administering said composition-of-matter to said subject systemically and/or to a central nervous system location of said vertebrate subject.